

LOUISIANA **Conservationist**

March/April 1988





J. Burton Angelle Sr., Secretary

IN ALL PROBABILITY this will be my last message to you as secretary of Wildlife and Fisheries.

Between the Naval Air Corps, the St. Martin Parish Police Jury, the State Legislature and the Department of Wildlife and Fisheries, I have spent the majority of my adult life (30 years this year) in public service. In many ways, I feel younger now than when I entered the Air Corps in 1943.

The last 12 of those 30 years service have been an unprecedented stint as director of Wildlife and Fisheries. Except for a brief period during a previous administration, I have directed the fish and wildlife conservation efforts of this state since the early 1970s.

During that time, I watched with pride as the department matured into one of the premier fish and wildlife agencies in the nation. I take pride in an aggressive land acquisition program that to date has acquired in excess of 400,000 acres of wildlife habitat for the enjoyment of countless future generations.

I take pride in world-renowned wildlife research and management efforts that have resulted in the resto-

ration of alligator, deer, turkey, striped bass and our state bird the brown pelican, just to name a few, and a sustained yield of seafood products that consistently leads the nation.

I take pride in the fact that we have accomplished these and myriad other things with self-generated funds and an annual budget of approximately one half of one percent of total state expenditures.

I am most proud, however, of the genuine feeling of warmth and respect I sense from those selfless, dedicated individuals, from secretary to scientist, I have had the pleasure to know and work with these past 12 years.

It is to these and others who will follow them in the future I offer my final challenge.

We have always been a self-funded agency. Even during the days of abundant general fund money we lived or died on our own. When we ran short, offers of general fund monies weren't forthcoming. We were told to be frugal and plan ahead.

We did precisely that. We watched every dollar. We established, and subsequently increased, special trust funds for Rockefeller, State Wildlife and Marsh Island refuges to offset ever declining mineral royalties. We appealed to sportsmen for much needed license fee increases and we, with the overwhelming support of Louisiana voters, protected the Conservation Fund by including it in the state constitution.

Now, as general fund monies dry up, we are hearing a different tune. Share and share alike we are now being told.

I'm not a callous person. I care about education and social programs and health care. But, I also care about our woods, waters, fish and wildlife. And I think it would be the ultimate injustice if we were to suffer because we've done a good job.

I challenge you to not let that happen.

May God bless you and yours.
Goodbye.

Louisiana Conservationist
(ISSN 0024-6778)

Volume 40, No. 2

New Orleans, Louisiana 70130

Edwin W. Edwards, Governor
J. Burton Angelle Sr., Secretary
Sonny Paxton, Deputy Secretary
Wilson Byrd, Undersecretary
William S. "Corky" Perret, Assistant Secretary
Joe L. Herring, Assistant Secretary

Wildlife and Fisheries Commissioners

Joe Palmisano, Chairman, Chauvin
Dr. Jack T. Cappel Jr., Alexandria
M. Lyle Crain, Grand Chenier
Don Hines, Bunkie
Warren I. Pol, Baton Rouge
Dale Vinet, Delcambre
James Jenkins, Jr., Baton Rouge

Division Chiefs

Hugh Bateman, Game
Bob Dennie, Information/Education
Bennie Fontenot, Fish
Mary Mitchell, Fiscal
Ray Montet, Enforcement
Johnnie Tarver, Fur/Refuge

Bob Dennie, Editor
Wade Byrd, Associate Editor
Wayne Miller, Art Director
Maurice Cockerham, Staff Writer
Bob Sheldon, Staff Writer
Sara Ann Harris, Staff Writer
Guy LaBranche, Photographer
Bill Ford, Photographer
Juanita Carden, Circulation Manager

Copyright 1988 by the Louisiana Department of Wildlife and Fisheries.

The Louisiana Conservationist is published bimonthly by the Louisiana Department of Wildlife and Fisheries, P.O. Box 15570, Baton Rouge, LA 70895; editorial office, 2156 Wooddale Blvd., Suite 900, Baton Rouge, LA 70806. Second-class postage paid at Canton, OH 44711. Postmaster: Send address changes to Louisiana Conservationist, P.O. Box 15570, Baton Rouge, LA 70895.

Regulations of the U.S. Department of the Interior strictly prohibit unlawful discrimination in departmental federally assisted programs on the basis of race, color, national origin, age or handicap. Any person who believes he or she has been discriminated against in any program, activity, or facility operated by a recipient of Federal assistance should write to:

Director
Office for Equal Opportunity
U.S. Department of the Interior
Washington, D.C. 20240

LOUISIANA Conservationist

Published by the Department of Wildlife and Fisheries in the interest of conservation of Louisiana natural resources

In This Issue

- 4 **A Tasteful Campaign** by Bob Sheldon
Under state auspices, a major drive has been launched to sell more of our homegrown seafood in world markets.
- 8 **The Last Hurrah** by D. R. Saucier
The pitched battle with the huge garfish over three decades ago is still vivid in this writer's memory.
- 12 **Louisiana's Rare and Elusive Snakes**
by Steven B. Reichling
Louisiana residents should be proud of the unique and remarkable snakes that inhabit their state.
- 15 **Forests Are More Than Trees**
National Wildlife Week poster features a variety of forest types and forest-dwelling creatures.
- 19 **The Cutting Edge** by Maurice Cockerham
Most of us have trouble keeping knives sharp. With the new systems, there's no secret to maintaining the cutting edge.
- 22 **Venturing Out** by Sara Ann Harris
In upland Louisiana is a territory of bizarre topographical features and rugged beauty—one still replete with wildlife.

Departments

- 27 **We Get Letters** *Some comments from our readers.*
- 28 **Conservationotes**
Notes and news of interest to outdoor enthusiasts.
- 31 **Bayou Kitchen** by Wayne Miller
Front Cover *Kisatchie Hill Wilderness* by Bill Ford
Back Cover *National Wildlife Week Theme Poster*



This public document is published at a total cost of \$60,000. 220,000 copies of this public document were published in this first printing at a cost of \$60,000. The total cost of all printings of this document including reprints is \$60,000. This document was published by The Louisiana Department of Wildlife and Fisheries to foster the department's overall program of conservation of our renewable natural resources under authority of Article 9, Section 7 of the Louisiana Constitution and Act 11 of 1980. This material was printed in accordance with standards for printing by State Agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of the Louisiana Revised Statutes.



Squid



Black drum



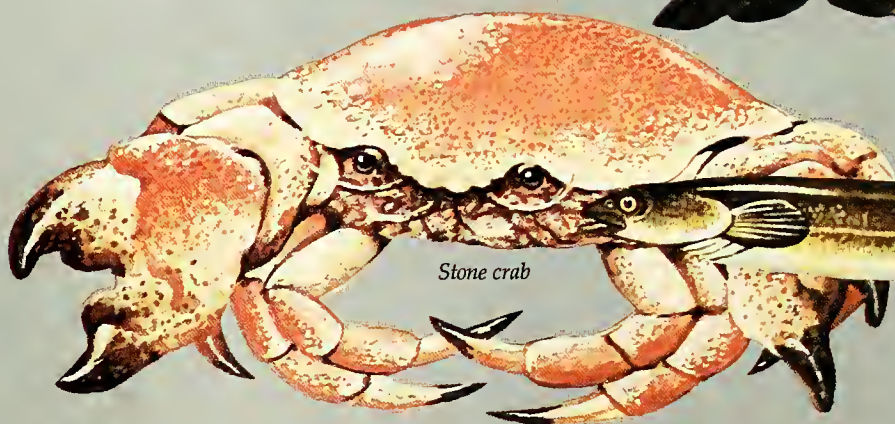
Oyster drill



Hammerhead shark

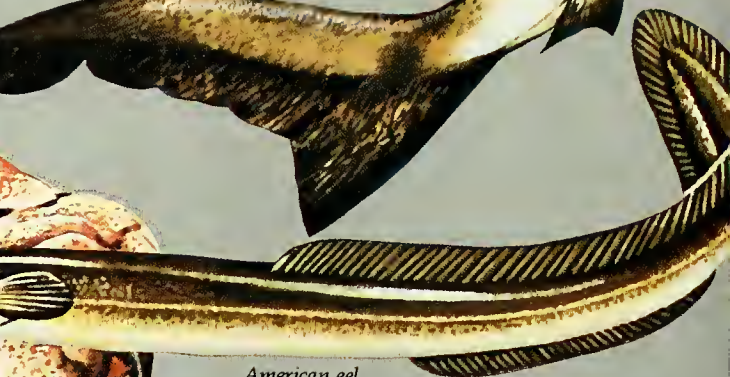
A Tasteful Campaign

By Bob Sheldon



Stone crab

American eel



To stimulate demand, production and sales of underutilized species is one important job of the Louisiana Seafood Promotion and Marketing Board.

IF YOU LIVE IN LOUISIANA, it's a safe bet you love seafood. You may even be a mite smug about your ability to select from the many available varieties and then to fry, bake, broil, poach, barbecue or smoke it to your liking.

But when's the last time you tasted jellied eel? Or snails in garlic butter? Or raw tilefish paste?

Odd as they may sound, all of those dishes are popular delicacies somewhere in the world. They represent, in fact, only a few of the many edible species native to Louisiana that are utilized far below their economic potential.

To stimulate demand, production and sales of these underutilized species is one important job of the Louisiana Seafood Promotion and Marketing Board.

That relatively young agency of state government at present has only five staff members of its own, but it enjoys the cooperation of all segments of the seafood industry, from marine extension agents and university faculty to wholesale vendors and gourmet chefs.

With those resources, and funds allocated from the sale of commercial fishing and gear licenses, the seafood board is mounting an ambitious, multi-pronged campaign to maintain and improve Louisiana's leadership position among the world's marine fisheries.

The seafood board begins with a solid foundation built on Louisiana's Big Three—shrimp, oysters and blue

crabs, succulent shellfish that are in demand everywhere.

All great industries, however, are subject to economic downturns and other forces beyond their control. To those hazards, the seafood industry can add the natural fluctuations in fish populations and the vagaries of human preference that, say, put a premium on redfish while shunning mullet.

It was in a period of business uncertainty in 1981 that the Louisiana Legislature authorized the establishment of the Seafood Board as a stabilizing measure.

One of the original members appointed in 1983 was Mike Voisin, who runs a processing business in Houma. Voisin is still with the board and is a former chairman.

He recalls that the problem of finances was temporarily solved with a grant from the Gulf and South Atlantic Fisheries Foundation, a private institution. The Seafood Board

then drafted a plan for adding \$5 to commercial license fees to pay for its operations, and the Legislature went along with the idea in 1984.

Money began coming in the following year.

The board works under theegis of the Louisiana Department of Wildlife and Fisheries, and Phil Bowman, Assistant Chief of the department's Seafood Division, holds an ex-officio seat.

Besides Voisin, board members include William D. Chauvin, chairman, New Orleans; Tee John Mialjevich, vice chairman, New Orleans; Frank Tullos, secretary-treasurer, Metairie; Bob Auerback, Franklin; Dr. Barbra Coatney, Lake Charles; Tut Cheramie, Grand Isle; Todd Gerald, Baton Rouge; Leroy Kiffe, Lockport; and Eddie McCulla, Thibodaux. Two other seats are currently vacant.

The board members, all knowledgeable in one or more aspects of the seafood industry, meet bimonthly



Louisiana Seafood Challenge put chefs to rigorous test. Finalists in "cookoff" are (from left) Bob Williams, Sonny Aymond, Garrett McKeeman, Jerome Excuriex, Tim Creehan and Bruce Cain. Cain, from Bossier City, will compete in national event in March at Charleston, S.C.

*A more glamorous name
for oyster drill: Cajun
escargot?*

and serve without pay. To head up the board's office on the Louisiana State University campus in Baton Rouge on a fulltime basis, a nationwide search for an executive director was conducted last year.

Chosen for the job was Karl Turner, until then director of the Economic Development Center at Xavier University, New Orleans, as well as chairman of Xavier's Department of Business Administration and Economics.

Turner, youthful and energetic, has involved himself in a never-ending round of person-to-person contacts, trade shows, and restaurant and consumer promotions.

All those activities are designed to boost acceptance and recognition of Louisiana seafood products, but

particularly such unexploited species as sheephead, black drum, grouper, amberjack, mullet, stone crabs, tuna, and shark (there are more than 60 kinds of shark in North American waters), among others.

If they are to be popularized, not only fishermen and dealers but also homemakers and chefs will have to be taught some new tricks.

Turner travels extensively and meets frequently with volume buyers from Asia and Europe, more and more of whom are beating a path to the New Orleans marketplace.

The Belgians and Germans have asked about the eels that abound in Louisiana's wetlands. The French are interested in oyster drill, the small snails sometimes found attached to oyster shells. And the Japanese have



Speedy shuckers vie for Oyster Bowl crown in New Orleans. Promotional event gave seafood board a contender for world title, Duke Landry of Baton Rouge.



Seafood board's attractive display, featuring refrigerated showcases, tours trade gatherings throughout U.S. When surrounded by Louisiana commercial exhibitors, it becomes "Cajun Corner."

admitted to a fondness for sashimi made with tilefish.

In behalf of the seafood board, Turner works with the Louisiana Restaurant Association and the radio, television and print media to get the public's juices flowing for well-prepared viands. He collects and distributes recipes, and joins in the sponsorship of educational programs and cooking contests for professional chefs.

One media event, an Oyster Bowl staged in New Orleans, produced a champion oyster shucker who went on to win the national title in Maryland and will vie for the world oyster-shucking crown in Ireland in September. He is Duke Landry of Baton Rouge.

Perhaps the most significant approach taken by the seafood board is its all-out participation in trade shows. These shows, generally closed to the public, attract commercial people from all over the globe. Turner says they have enabled him to amass a list of 1,500 business "leads."

Major gatherings have included the seafood producers' show each March in Boston, the largest of its kind; the Food Marketing Institute each April in Chicago, mainly for grocery chains and other retailers; Seafare '88, held in February in Long Beach, Calif.; and Seafare Southeast, held last October in Orlando, Fla.

For such shows, the seafood board maintains a cluster of booths which unite Louisiana exhibitors under the banner of "Cajun Corner." The display has won a national award for marketing excellence from *Seafood Business* magazine.

The board is counting on "Cajun Corner" to do its bit in overcoming the vexing problem of name recognition. It wants to see the terms "Louisiana shrimp" and "Louisiana oysters" receive the same currency now given to "Maine lobster."

If the board has its way, "Louisiana stone crab" (an underutilized species) will someday challenge "Florida stone crab." You'll hear more about "Louisiana blue crab" (which crops

up even in Baltimore restaurants) and less about "Maryland crab."

And the board is taking a cue from the experience of Alaska, which never could peddle "Alaskan king crab" so long as it was known by its original name of spider crab.

When more pressing issues are not taking priority, Seafood Board members are mulling a more glamorous designation for oyster drill, especially one that would appeal to diners in France.

So far, they've come up with "Cajun escargot" and "petit escargot." Well, whatever you call it, if it's fixed right "c'est si bon!"

If you want to know more about the board's activities, write or telephone the Louisiana Seafood Promotion and Marketing Board, P.O. Box 15570, Baton Rouge, LA 70895. The phone number is 504-342-1660. Callers outside Louisiana may use the national toll-free line, 1-800-222-4017.



The Last Hurrah

By D. R. Saucier

*The huge gar in its desperation leap bel-
lowed like a bull. The wailful sound of
that fish in the dark night has remained
with me over these many years.*



Photography by Paul Seidensticken and Jim Cox.

IT BEGAN ONE WARM JULY NIGHT in 1954. Our neighbors, Bill and Jo Bamber, had crossed the street for their weekly evening visit. The conversation ran its usual course from farm implement sales—Bill was employed as a salesman with a firm in Cottonport—to the various people whom I had met during the week while doing work for the U.S. Department of Agriculture in Avoyelles Parish.

The drought which we were experiencing became part of the conversation since it was having an impact on our bass and bream fishing in Old River. Bill mentioned that some of his friends in the Bordelonville area were fishing for alligator gar south of Acme on the Black River. It seems that the current long, dry spell had lowered the water level in the Black and Red Rivers and huge gars had found sanctuary in the deep holes in the river. Local fishermen were using "floaters" and carp for bait to hook these prehistoric monsters. Needless to say, the remaining portion of the visit was devoted to planning a trip for the following Friday afternoon.

The dry spell continued throughout the next week. More and more reports came to us of successful catches of the big gars. Each day brought a new excitement. Anticipation ran at fever pitch.

Our day finally arrived. We departed from Mansura in mid-afternoon with the most unusual tackle. The fishing gear consisted of twenty-five straight willow limbs, about 6 feet long, approximately one-inch in diameter and stripped of their bark. About 3 feet of nylon cord was securely tied to the butt end of the limb. A copper wire leader with two hooks was then attached to the nylon cord. These were going to be our "Floaters." Arrangements had been made with a commercial fisherman in Simmesport for bait—carp weighing about a pound or so.

We launched my 12 foot semi-vee boat with Bill's new 20 H.P. outboard attached to the transom. It was hot but the flow of excitement through our bodies negated the burning sun. As we headed from the landing at Simmesport it was inconceivable how we had managed to place floaters, gasoline and an ice chest in our small boat. We passed under the Simmesport bridge and headed North.

The trip up Red River was—and I'm certain still is—a picturesque boat ride. The miles of beautiful timber, sand bars along the river that give way to sheer and majestic bluffs with rustic camps and abundant wildlife surpass my description.



Late that afternoon we were about 2 miles South of Acme. It was time to bait our floaters. Using a small shaft we pushed it through the carp's mouth until it protruded above the anal fin. The leader was then pushed through this rodded opening and tied to the nylon cord. All floaters were prepared. It was time to start placing them at regular intervals in the river.

The outboard caught on the first pull of the cord. It was as though the motor sensed that it could relieve itself of some of the weight it had been pushing all afternoon. With the motor at full throttle Bill placed the floaters at intervals of 200 yards. The current was slight. The white willow limbs extended for approximately three miles. When the last one was placed over the side—it was time for a "break" and to watch our silent fishermen float downstream.

The sun was low in the West. Dusk was upon us as we tried to stretch and grab a bite to eat before "running the floaters." Sounds of the night and forest were now around us. There were long gaps of silence in the conversation. Bill would occasionally pull out a cigarette and with one smooth flip of the wrist the old weather beaten Zippo would come to life. An occasional mosquito would invade our realm only to be greeted with a brisk slap of the hand. The night grew darker.

Around 7:30 p.m. it was time to start our "run." I was

soon to find out that this meant we would start searching for those willow limbs with perchance a gar hooked to the carp end. We did not have long to wait. Within minutes our six volt headlights beamed on one floater protruding only inches above the water. The fish was about 12 feet below. As I moved the boat towards the floater it disappeared below the surface. We waited. Minutes passed. Eventually, the floater popped up. As we approached the fish, Bill took a ball of nylon twine and prepared a loop to snare the stub of the willow. Moving very slowly Bill lassoed the floater and threw a quick half-hitch. It was then that "Mr. Gar" realized that there were humans on the other end of that willow limb and it wanted no part of our company. The fish plummeted to the very depths of the river. The ball of twine revolved with such ferocity that Bill had to drop it in the boat. The fish stayed on the bottom. We waited and waited.

During this interim, Bill had attempted to instruct me on the role I was to play in boating this monster. It seems that local fishermen would pull the gar alongside the boat and then with a ball-peen hammer administer the coup-de-grace. Well—I was somewhat reluctant to try this. I convinced Bill that my .22 auto rifle would do a better job, and at longer range. Bill agreed.

"It's moving. It's coming up," Bill indicated as I



waited with the rifle.

The fish surfaced on the perimeter of our lights. I strained to find that vital spot where the head and the scales meet. Bill pulled slowly on the line. Down it went, all 8 feet in length pulling 6 feet of limb, 6 feet of line and 50 feet of twine.

We were both standing in the boat when the fish made an abrupt change in its plans. It exploded from the surface with a 4 foot leap, thrashing wildly to shake the embedded hooks. The white willow limb and carp gleaming in our headlights. It was at that point in time that something most unusual happened. The huge gar in its desperation leap bellowed like a bull. The wailful sound of that fish in the dark night has remained with me over these many years.

Eventually, the gar's strength ebbed. We had waged battle for over three hours. It drew closer to the boat as Bill pulled slowly on the line. I raised the .22 and placed my shot back of the head. But—youth, inexperience and excitement don't equate to reason. I quickly snapped off two additional shots. The huge gar rolled over on its back. Bill pulled on the line to drag the fish closer to the boat. Suddenly, Bill lunged at the fish trying to grasp it. The gar slid slowly into the depths of the river until our headlights could silhouette it no longer. One of the shots was low and had cut the copper leader in the gar's jaws!

It was now 11:00 p.m. We had lost our first battle with the gars of Black River. Disappointed, ex-hausted, drained by the day's heat, we decided to beach the boat on a sand bar and rest. We stretched out and closed our eyes as the river flowed slowly past us.

Around 2:30 a.m. I nudged Bill and asked if we should continue "running the floaters." A cup of coffee, two pulls on the outboard, and we were moving again. Our floaters placed miles to the north were now in our midst. Within minutes we spotted a vertical floater and the action started all over again. The fish drew near the boat. I asked Bill, "Let me try with the rifle again?" I wanted so desperately to redeem myself. Gentleman that he was, Bill consented. Slowly I squeezed off the shot and the big gar rolled over.

As dawn came upon us somewhere on that river we were boating our 6th gar fish. It was time to head for the landing. We made an attempt to recover our floaters should we want to return. The small boat with its original cargo plus six–8 foot gars was literally loaded to the gunnel.

We certainly attracted a great deal of attention at the landing in Simmesport. We were tired, dirty, but the exhilaration kept smiles on our faces all the way back to Mansura.

I have related the story of the gar-fishing trip in many parts of the country whenever conversations have turned to fishing adventure. The big gar and its leaps of desperation are still vivid in my mind. But this is my Last Hurrah and no more will I tell about our trip.



Here is Jo Bamber's favorite garfish recipe.

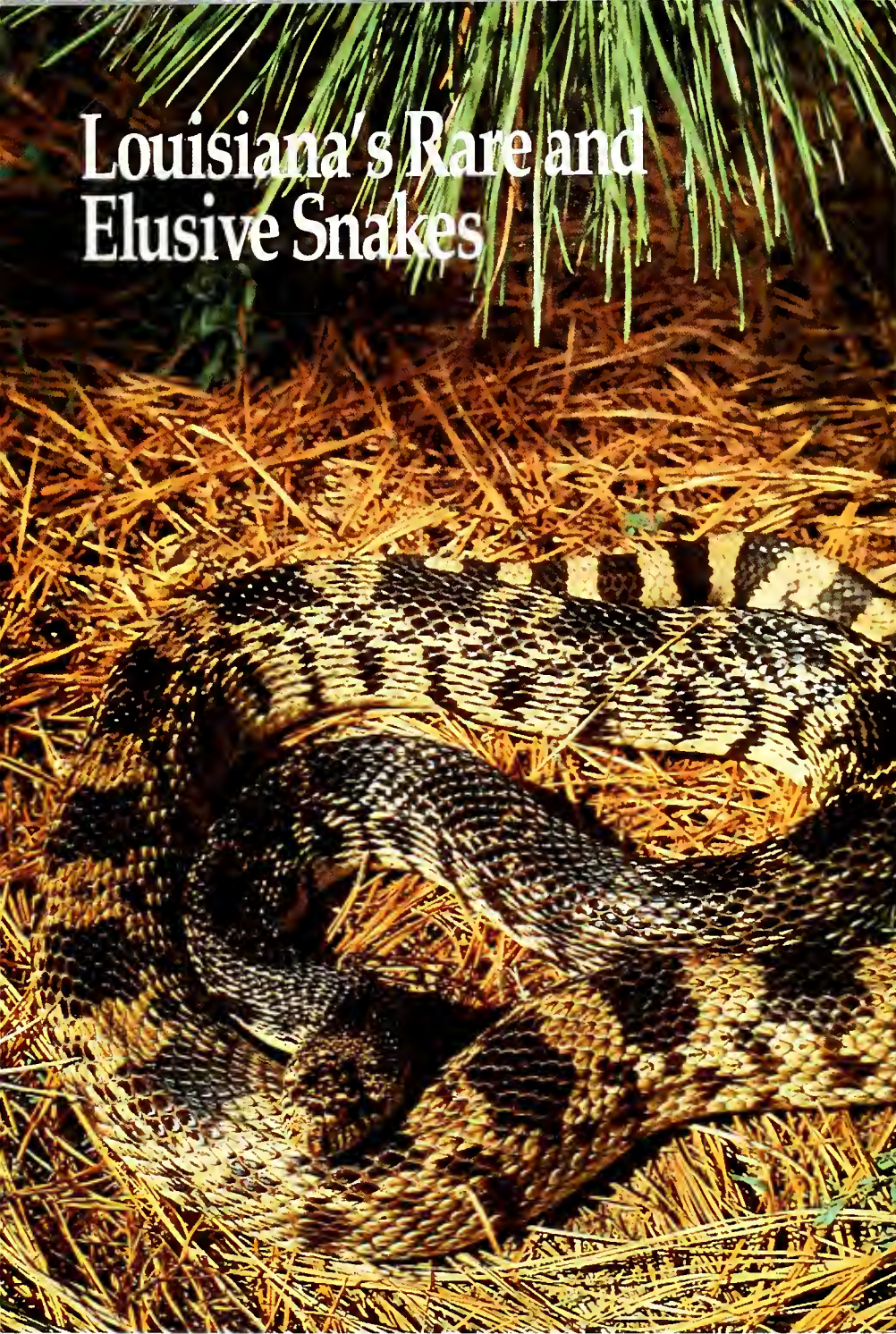
Garfish Balls

- 1 lb scraped garfish * (raw)
 - 1/2 cup bread crumbs
 - 1 onion chopped fine
 - 2 med. cloves of garlic, pressed
 - 2 or 3 shallots (green onions) chopped fine (use green tops also)
 - 3T chopped parsley
 - Salt & pepper to taste
- For gravy:
- 1 small onion, chopped
 - 1 rib of celery, chopped
 - 1 bell pepper, chopped

Scrape garfish off bones raw with a spoon; this leaves most of the gristle and nerves behind. You can use ground garfish by cutting flesh from bones and grinding it, but it is much better scraped.

Mix all chopped ingredients and bread crumbs with garfish and shape into balls or patties. Roll in flour and fry in cast iron pot in about 1/2 cup of oil until balls are brown. Pour off all of oil except 2T. Leave all of brown crumbs in the bottom of pot. Add chopped seasonings to pot and sauté until transparent. Return fried balls to pot and cover with water. Let simmer for about 1 hour. Add water as needed to make the amount of gravy you want. Serve over rice.

Louisiana's Rare and Elusive Snakes



Louisiana pine snake

Text and Photography by Steven B. Reichling

The most infrequently seen snake in the U.S. is found in Louisiana, a snake so secretive and rare that most persons living near its haunts are unaware of its existence.

IT IS DIFFICULT for most people to appreciate the unique beauty exhibited by snakes. So much prejudice and misinformation cloud the public's perception of serpents that their ecological importance and aesthetic appeal often go unnoticed. Many forms of Louisiana wildlife, such as pelicans, sea turtles and alligators, receive public support for the state and federal laws that protect them, but it has always been difficult to elicit sympathy for the plight of

Editor's Note: Steven Reichling is with the Department of Herpetology, Memphis Zoo and Aquarium, Memphis, Tennessee and has done extensive research on the Louisiana pine snake.

snakes. Nevertheless, Louisiana residents should be proud of the unique and remarkable forms of snakes that inhabit their state, and should support protective measures for these beautiful but maligned natural wonders.

The most infrequently seen snake in the U.S. is found in Louisiana, a snake so secretive and rare that most persons living near its haunts are unaware of its existence. The rare snake in question is the Louisiana pine snake (sometimes referred to as the bullsnake).

Pine snakes formerly occurred in the vast tracts of longleaf pine forest that once dominated much of western Louisiana and eastern Texas. The virgin forest was destroyed during the 1920's by lumbering activities, before selective cutting and replanting were widely practiced. The resulting rapid and complete habitat destruction provided no time for relatively immobile animals—such as snakes—to escape the changes brought about by extensive deforestation.

Pine snakes were once far more numerous in Louisiana than they are today, and were frequently mentioned in old natural history accounts of the state. Herpetologist Henry S. Fitch, who spent one summer collecting reptiles near Leesville in the 1940's, found three specimens and saw several more during his short stay. Encounters with the pine snake today are extremely infrequent, especially in the southern part of their historic range in Vernon, Rapides, Sabine and Natchitoches Parishes. The Louisiana pine snake is most often seen today in sandy-soiled areas of Bienville and Jackson Parishes.

Pine snakes are accomplished burrowers, but require loose, sandy soils. Here they will burrow to escape intense heat or cold, or to nest and lay their eggs. Louisiana pine snake eggs may measure over five inches long and two inches wide, making them the largest eggs of any U.S. snake. The eggs are so large that

Is its apparent rarity only a result of secretive habits that make encounters with man unlikely, or is the snake actually on the brink of extinction?

even a five foot long female will seldom lay more than five—there simply isn't room in her body for any more eggs!

While the breeding habits of Louisiana pine snakes in the wild are unknown, observations made on a captive colony I maintain, and data on other forms of pine snake gleaned from the scientific literature, indicate that eggs are deposited and abandoned in burrows that the female digs. Using her enlarged, pointed snout to move the loose sand, female pine snakes excavate a long tunnel leading to an enlarged chamber, where the eggs are laid. Egg laying may take place from May to July. In sixty to seventy days the eggs will hatch. As might be expected from such sizeable eggs, the newly-hatched babies are extraordinarily large and robust, and usually measure twenty-two inches or more in length.

Many questions remain concerning the Louisiana pine snake's natural history. Is its apparent rarity only a result of secretive habits that make encounters with man unlikely, or is the snake actually on the brink of extinction? Is it the norm for pine

snakes to lay small numbers of very large eggs, as suggested by the few recordings of captive breedings? Where do these snakes spend most of their time while going so unnoticed? Hopefully, some answers will be provided by a continuing field study and captive propagation program I have undertaken, in which information gained from the time spent in Louisiana's pine woods is supplemented with data accrued from observations made on captives. In the meantime, anyone lucky enough to encounter one of these magnificent brown and yellow serpents trailing its way across a floor of pine needles and sand should consider that meeting a rare privilege.

Louisiana can boast of several other rare and unusual forms of snakes among its rich reptilian fauna. A melanistic form of pine snake, the black pine snake, probably occurs in the pine forests of Louisiana's "Florida Parishes" east of the Mississippi River, although recent records are lacking. Like the Louisiana pine snake, this glistening black snake is endangered due to the excessive logging practices of the early 1900's.

Two little-known types of racers—one of them found nowhere else but Louisiana—deserve mention. The endemic subspecies is called the black-masked racer, and lives in the cypress wooded bottomlands along the Mississippi River south of Baton Rouge. This subspecies' scientific name, *latrunculus*, means "little robber" referring to the dark smudges of pigment that extend backward from each eye, resembling a robber's mask. The tan racer is a lovely beige colored serpent, sometimes randomly sprinkled with faint, lighter flecks. It is basically a pale version of the familiar and widespread buttermilk racer. Unlike its more common relative, the tan racer seems unable to adapt to any habitat other than longleaf pine flatwoods. Always very restricted in range, the tan racer has become uncommon for the same reasons that brought about the decline of the pine snakes. Thus far, it has only been found in parts of Beauregard and Vernon Parishes, and in a few neighboring counties in eastern Texas.

The venomous coral snake inhabits the western portions of Louisiana, but throughout the state there occurs



Typical habitat of Louisiana pine snake (left) is characterized by sandy soil and longleaf pine trees. Photo at right is of one day old captive-bred pine snake. The captive propagation program will shed light on aspects of the snake's biology.

an equally gaudy but harmless mimic of the deadly reptile. The Louisiana milk snake is brilliantly ringed with red, black and yellow, just like the coral snake, but the colored bands are arranged in a different order. In the coral snake, red bands are bordered on each side by yellow ones, while in the harmless milk snake red bands always contact black bands. The overall similarity of these two native Louisiana snakes is striking, however, and the milk snake undoubtedly gains some measure of protection by resembling the dangerous coral snake. Louisiana milk snakes occur statewide in a wide variety of habitats. In the pure form they occur only in Louisiana and eastern Texas (adjacent to the Sabine River). While not actually rare in terms of numbers, the Louisiana milk snake is quite secretive and not often seen, and may be considered one of Louisiana's more elusive snakes.

I have mentioned just a few of the great variety of snakes found in Louisiana. They are noteworthy because of their rarity, beauty and because little is known about their way of life. The Louisiana pine snake may be the rarest and most endangered snake, and should not be killed or molested. On the contrary, the pine snake and the other remarkable snakes mentioned should be appreciated for their rare beauty. They are animals that can be seen in few, if any, places other than Louisiana. Just like mammals and birds, these unique Louisiana snakes are natural treasures that we can be very proud of.

Some of Louisiana's most seldom seen snakes, top, black pine snake; middle, tan racer; and bottom, Louisiana milk snake.



SOUTHERN CYPRESS SWAMP FOREST

Parts of the southeastern United States are home to an unusual type of forest called the cypress swamp. Here, water covers the bottoms of the swamp trees, like the bald cypresses, pond cypresses, and tupelos, during the rainy season. This water is a reservoir for wildlife living in and around the swamp. Muskrats, frogs, and dragonfly nymphs find food and shelter among the submerged tree roots. Wading birds, like the snowy egret, nest in the treetops. And many other creatures live in and around these soggy habitats. Cypress swamps provide more than homes for wildlife. They help clean up polluted water that passes through them. And they also provide valuable timber and many forms of recreation. Many swamps have been drained and filled to provide land for other timber trees, houses, and farm crops. These practices threaten the cypress swamp.

Photo by: John Eastcott and Yva Momtuluk/DRK Photo

NORTHERN MIXED FOREST

The blend of green needles with red and yellow autumn leaves tells us that this northern woodland is a mixed forest. Here, climate and soil conditions are right for both needle-leaved conifers, such as spruce, pines, and hemlock, and for broad-leaved deciduous trees, such as maple, beech, and oak. North of this forest, the ground is cold and waterlogged, and only conifers can grow. Farther south, where it's warmer and the ground can dry out, deciduous trees flourish. But in the mixed forest, both types of trees are found. Some animals, like martens and goshawks, prefer areas in the mixed forest with lots of conifers. Others, like elm bark beetles, live in stands of deciduous trees. And some, like white-tailed deer, live in both. Today, acid rain threatens the northern mixed forest. This region's climate, soil, and mountains make it especially sensitive to this form of air pollution.

Photo by: Kitty Kohnout/Pool Resources

ROCKY MOUNTAIN FOREST

If you climb a mountain in the Rockies, you'll pass through several different types of forests on your way to the top. That's because climate and soil conditions change rapidly with elevation. For example, in the Rockies, it can be hot and dry at the base of a mountain, while it's cold and snowy at the top. Junipers have adapted to the warm mountain bottoms, and ponderosa pines flourish just above them. Subalpine fir and Engelmann spruce grow near icy mountain peaks. And Douglas-fir occupy middle elevations where it is neither too cold nor too dry. Lodgepole pine and quaking aspen grow where stands of other trees have been burned or logged. Many Rocky Mountain animals move from one forest type to another as the seasons change. Some, like bighorn sheep and mule deer, head down the mountain during winter, whereas others, like blue grouse, move up.

Photo by: Pat Ohara/DRK Photo

PACIFIC COASTAL OLD-GROWTH FOREST

For centuries, the old-growth forests of the Pacific Northwest have stood undisturbed. This long time without human interference has made old growth a very special kind of forest. The Douglas-fir, western hemlock, and Sitka spruce that grow here are so old—from 200 to over 1000 years—that many are more than 250 feet (75m) tall with trunks that are 10 feet (3 m) thick. The upper branches of these giant conifers form a multi-layered canopy, which keeps the forest floor dark and shady. This canopy benefits animals (like Roosevelt elk and black-tailed deer) and plants by keeping temperatures and moisture levels favorable year round. Old-growth forests have many large, dead trees, which provide food, water, nutrients, and shelter for Pacific giant salamanders, carpenter ants, and other animals. About 80 percent of the original coastal old growth has already been harvested.

Photo by: Stephen J. Krasemann/DRK Photo

GOLDEN MOUSE

The sure-footed golden mouse (*Ochrotomys nuttalli*) scampers quickly through the trees, vines, and thickets of southeastern forests. It's well suited for life in the trees. The golden mouse's long tail helps it keep its balance as it scurries along. And the mouse can curl this flexible tail around branches, and swing or hang from them. Golden mice feed on seeds and berries, which they carry to special feeding platforms to eat in safety. When they're not foraging, you might find a group of these sociable mice sleeping in their nest. This 6-inch (15-cm) long mouse is named for its beautiful cinnamon-golden fur.

Photo by: Robert C. Simpson/Tom Stack & Assoc.

RUFFED GROUSE

Ruffed grouse (*Bonasa umbellus*) live in cool northern mixed forests from California to Maine. In the winter and early spring, grouse prefer conifer stands because they provide lots of cover. In the late spring and summer, the grouse move to hardwood patches, where they find an abundant supply of seeds, buds, leaves, and flowers to feed on. Young grouse eat insects too. The adults are about 1.5 feet (45 cm) long. Male grouse are well known for their noisy spring antics. To claim a territory, the males jump up on logs and beat their wings back and forth—as many as 50 times in 8 seconds! This loud drumming attracts females and warns other males to stay away.

Photo by: Tom & Pat Leeson

PORCUPINE

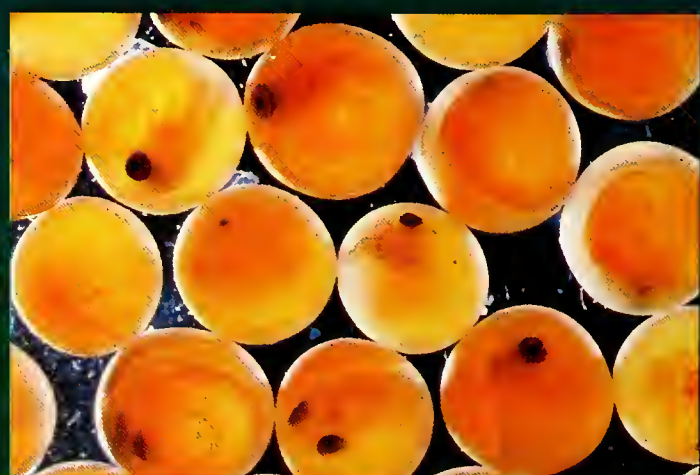
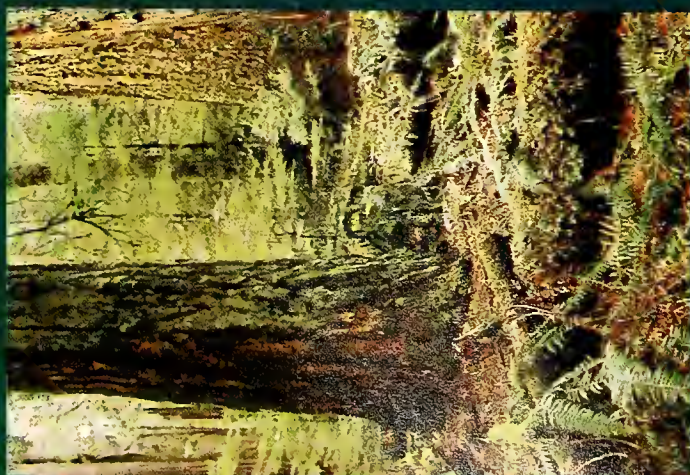
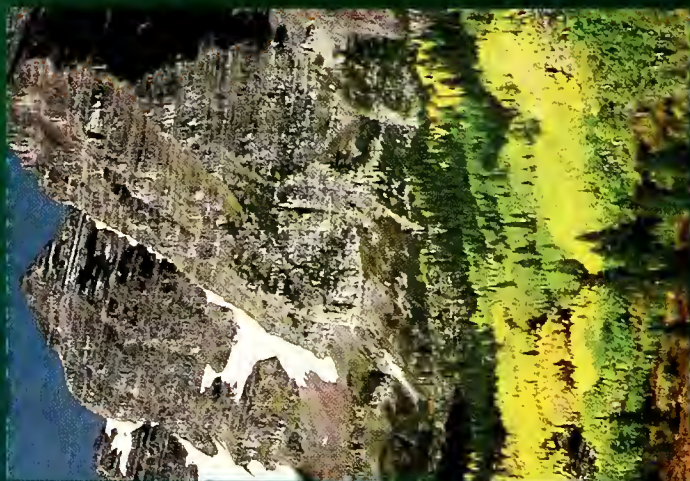
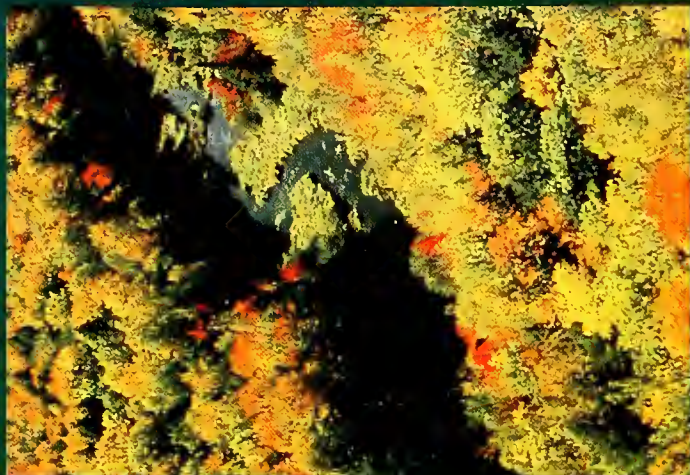
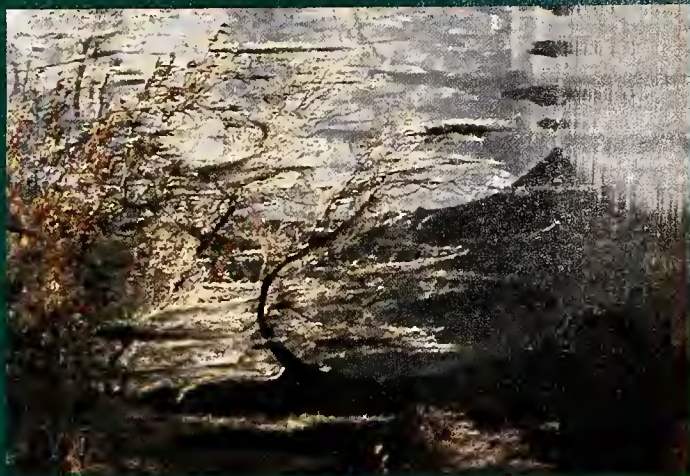
A tree that's missing a lot of bark is a likely sign that a porcupine is nearby. The North American porcupine (*Erethizon dorsatum*) feeds on bark, along with leaves, pine needles, and twigs. This 2- to 3-foot (61–91-cm) long rodent can even kill a tree if it strips off too much bark. Porcupines rely on their thick, barbed quills for protection. Usually the porcupine keeps the quills relaxed and hidden underneath long guard hairs. But when threatened, it will turn around and smack its enemy with a tailful of quills. Because the quills are hollow, they provide the porcupine with buoyancy and make it a good swimmer. Porcupines live in forests throughout the West, the Northeast, Michigan, Wisconsin, and Minnesota.

Photo by: Jeff Foell

SALMON EGGS

These tiny Pacific salmon (*Oncorhynchus*) eggs are each less than half an inch (1.3 cm) wide. Although they live in the ocean as adults, the salmon spawn, or lay their eggs, in freshwater streams from northern California to Alaska. Females bury their eggs on stream bottoms in nests of gravel called redd's. Many spawning streams run through Pacific forests, and activities in the forest, such as logging, can damage the streams and harm the salmon eggs. For example, when too many trees are cut down near the edge of a stream, the streambank often erodes. And that causes silt and debris to run into the water and clog the redd's, suffocating the salmon eggs. Some people worry that excessive logging in Pacific forests is threatening salmon populations.

Photo by: Jeff Foell





FORESTS ARE MORE THAN TREES

NATIONAL WILDLIFE WEEK MARCH 20-26, 1988
JOIN AND SUPPORT THE
NATIONAL WILDLIFE FEDERATION
AND STATE AFFILIATES

americana) builds its nest in the tops of cypress or mangrove trees. At one time, these 3.5-foot (11-m) long birds nested in cypress swamps throughout the southeast. But draining, lumbering, and drought in the swamps have reduced the wood stork's habitat and have caused this bald-headed bird to become endangered. Now it breeds almost exclusively in parts of Florida. Wood storks use their long beaks to probe the bottoms of ponds and marshes for fish, insects, reptiles, or amphibians. If they don't find enough food, they may not breed at all. After the nesting season, wood storks leave the cypress swamps and spread out across the southeastern United States and Central and South America.

Photo by: Wendall Metzger/Bruce Coleman Inc.

WATER MOCCASIN

The sluggish waters of the cypress swamp are home to the water moccasin (*Agkistrodon piscivorus*). When this venomous snake is threatened, it raises its head and opens its mouth wide. One look at the white, putty flesh inside will explain why we call this snake "cottonmouth." Cottonmouths hunt both in the water and on the land, eating frogs, fish and small mammals. When they're not searching for their next meal, these snakes can often be found sunning themselves on the shore, or on branches hanging over the water. They live not only in swamps but also in rice fields and slow-moving rivers from southeastern Virginia to Texas. Adults can be anywhere from 2 to 6 feet (6-1.8-m) long.

Photo by: Zig Leszczynski/Animals Animals

northern mixed forest, where dense stands of pine, spruce, and fir provide thick cover year round. Here, the marten, a type of weasel, feeds on rodents, birds, insects, and fruit. In the United States, this 2- to 2.5-foot (61-76-cm) long mammal is found in Alaska and the colder parts of New England, New York, Minnesota, and western mountain ranges. The marten's thick, silky fur helps it keep warm in these frigid forests. But its fur also has endangered the marten. Unregulated trapping in the late 1800's and early 1900's caused the number of pine martens to fall sharply. Since laws were passed to protect it, the marten population has been recovering.

Photo by: Wayne Lankinen/DRK Photo

REDBACKED SALAMANDER

The redbacked salamander (*Plethodon cinereus cinereus*) is a very common salamander in the northern mixed forest, but you'd have to look closely to find one. During the day, this 2.5- to 3.5 inch (6.4-8.9-cm) long amphibian hides under leaves, stones, and fallen logs on the forest floor. It usually comes out at night to hunt for worms and insects. Although the redback lives on land, it needs to stay moist like all salamanders. So if the weather gets too dry, it will burrow under the ground until there's rain. Redbacked salamanders come in a variety of colors. Some have yellow or pink stripes going down their backs. And others-called lead-backed salamanders-are gray without any stripes at all.

Photo by: John M. Burnley/Bruce Coleman Inc.

ests. Tanagers come to these woodlands to mate and raise their young, leaving in the fall for the warmer climates of Mexico and Central America. They nest in conifers or oaks. Since these trees grow in most American forests from the Rockies to the Pacific, tanagers are common throughout the West during the summer. The male's bright colors make him easy to spot, especially when he perches on treetops or exposed branches and sings loudly. The female is less obvious with plain greenish-yellow coloring. The bluebird-sized tanagers are about 7 inches (18 cm) long. The feed mainly on insects-which they can catch in midair-and they also eat berries.

Photo by: Edgar T. Jones/Bruce Coleman Inc.

GROUND BEETLE

This shiny, black ground beetle (*Pasimachus californicus*) lives throughout the southwestern United States, from California east to west Texas and Colorado. It likes dry, fairly open areas, such as thinly wooded forests or plains. So, in the Rockies, you'd most likely see this 1- to 1.3-inch (2.5-3.2-cm) long beetle at lower elevations-in the juniper and ponderosa forests. This nighttime hunter can move quickly on its long, thin legs, which helps it catch caterpillars, grubs, and other slow-moving prey. And with its strong, ferocious-looking jaws, the beetle can kill its prey easily. This shiny western beetle often eats the larvae of insect pests.

Photo by: Breck P. Kent

occidentalis caurina) from hunting. Owls have keen vision and hearing to help them catch prey in the dark. And even though the spotted owl is large-about 1.5 feet (45 m) long, with a 3.5-foot (11-m) wingspan-it maneuvers around branches and vines with ease. The spotted owl's favorite food is the northern flying squirrel, but it also eats other rodents, insects, and small birds. Like most animals, spotted owls need a certain amount of space-called a territory-to live in. Scientists aren't sure just how big a territory this bird needs. But many people are concerned that if more old growth is cut, the northern spotted owl will have a tough time surviving.

Photo by: Tom & Pat Leeson

BANANA SLUG

This slimy yellow creature is a banana slug (*Arion columbianus*). Slugs are snails that have no shells. Without a shell's protection, slugs can't tolerate climates that are too hot or too dry. The moist, cool forests of the Pacific Coast are perfect for them. Banana slugs live only in this region-and they're the biggest slugs there. Adults can be anywhere from 5 to 9 inches (13-23 cm) long! Some of these giants are yellow, but others are green or brown. The best time to find a banana slug crawling about is at dawn or at dusk, when they are searching for a meal or mushrooms, lichens, or decaying plants. During the warmer portions of the day, slugs usually stay tucked under debris on the forest floor.

Photo by: Breck P. Kent

FORESTS ARE MORE THAN TREES

NATIONAL WILDLIFE WEEK MARCH 20-26, 1988
JOIN AND SUPPORT THE
NATIONAL WILDLIFE FEDERATION
AND STATE AFFILIATES

Written by Lauren Posnick.



The Cutting Edge

By Maurice N. Cockerham

Photography by Bill Ford

*"A dull knife is just a lump
in your pocket...ain't fit
for nuthin but to hurt
yourself."*



The secret to sharpening an edge on a hand stone is to maintain a consistent blade/stone angle for each stroke.



Traditional hand or bench stones are (left to right) natural Arkansas stone, new diamond hone and carborundum.

A SHORT WHILE AGO I was compelled to sit through yet another "important meeting" instead of being out in the bush where I belong. As terminal boredom crept frighteningly close, (in terms of value received for time involved, I rank meetings at the same level as clipping my toe nails or picking rocks out of my tire treads) I fetched out my pocket knife and a small sharpening stone. The result was similar to pulling out a pack of gum at a Valley Girls Convention. Within minutes, I could have gone into the knife sharpening business full-time.

Folks just don't want to sharpen their knives...not pocket knives, hunting knives nor kitchen knives. We won't even mention camp axes, machetes, hatchets and all those other interesting tools requiring some semblance of a cutting edge to function properly. Most simply they have never taken the time to learn how to fashion or restore a good cutting edge, while others just can't seem to make the jump from knowing what to do to actually doing it correctly.

Any soul who is going to spend much time in the real world is going to need a knife and need it frequently. There are boxes to be opened, strings to be cut, plastic whachamajigs to be trimmed slightly so they'll fit the thingamabob and pencils to be sharpened. Tent pegs must be sharpened, fishing lines must be trimmed and game must be dressed out. All these things call for a good knife with a keen edge. My granddad used to say that a gentleman worthy of the title would not be caught without a clean handkerchief and a good pocket knife. He also noted sagely that, "A dull knife is just a lump in your pocket...ain't fit for nuthin but to hurt yourself."

Now his method was to forcefully apply a discreet amount of saliva to a well worn carborundum stone and then strop the blade back and forth with a speed that blurred the vision. I can only say, it worked for him.

The average guy or gal should take a slower, more carefully reasoned

approach, especially until the mechanics are well understood and firmly established.

The first consideration must be the blade itself. Stainless steel is the buzz word in cutting tools today. Durable it is...stainless it ain't. Hard it is (usually)...permanently sharp it ain't. Fact is there are advantages and disadvantages to stainless, just as to traditional carbon steel blades.

There is an entire science involved in this and I'm no scientist. One can get quite bogged down in Rockwell-Cs and Diamond Pyramids and other terms. Suffice to say, stainless steel blades are considerably harder than so-called carbon steel. Once properly sharpened, they should hold their edge longer than the softer steels. The hidden price of that advantage is that the hard steel takes a bunch more rubbing on the old stone to produce or restore a keen edge. A carbon steel blade will require resharpening more frequently, but the edge can be restored with comparatively few swipes on the stone. You pay your money and take your choice.

The stone is the second consideration. You have as many choices in sharpening implements as in marriage partners. The time tested carborundum stones are still available in various configurations, sizes and grades ranging from coarse to mighty fine. Some folks tout the all-natural Arkansas stones which can be had in grades ranging from not-so-coarse to ridiculously fine. Still others hone-in (forgive me, I simply couldn't resist) on the new "diamond sharpeners." All of them serve the same general purpose. They grind small particles of metal from the blade until the two sides angle together to meet in a very smooth and fine (sharp) edge. We'll come back to sharpening stones, but first let's take a look at that "edge."

A pocket or hunting knife (the distinctions are blurred nowadays, what with the popularity of folders in all sizes), or a kitchen knife, is a general utility cutting tool. It is not

intended for hacking, a la meat cleaver or hatchet, nor for shaving, as with a straight razor. Many folks using many edges over many years have finally determined that what we need on such an implement is an edge angle of about 20-30 degrees. Too much angle and the blade will not slice easily into whatever you are cutting; too little and the cutting edge will wear quickly, necessitating frequent resharpening. Hatchets or cleavers intended for heavier duty cutting will, of course, need a slightly more acute angle, say 40 degrees, for the same reasons.

Before metal hits stone, you must understand that both carborundums and Arkansas stones need a lubricant. This is not to make the metal whisk easily across the surface, but rather to "float" the tiny bits of metal and tinier bits of stone being ground away. Without the lubricant, the little buggers lodge in the surface of the stone and pretty soon that surface is as smooth as glass. When that happens, there is no grinding going on and, thus, no sharpening.

The newer "diamond" sharpeners, made by EZE Lap and others, supposedly do not require a lubricant. These are thin slabs of metal with one surface coated with multi-thousands of very small industrial grade diamond chips. They are as hard as a teenager's head and will easily and quickly grind the hardest steel. Personally, they are my choice of choices for any edge between a surgeon's scalpel and a double-bit axe. Despite the manufacturer's claims, I do find that it helps to wipe them across a pants leg or brush them off after each use.

It's now time to bring stone and steel together. The great bugaboo of knife sharpening has always been the individual's ability to maintain the same angle between the blade and the stone on each stroke and on each side. Increase the angle for a couple of strokes and it takes ten strokes to correct the damage. Decrease the angle and one is grinding only the flat of the blade and adding nothing to the edge.

The choices are fairly simple and straight forward. You either decide to accept a shoddy job, practice until you can maintain the proper angle, or discard tradition and romance and go for one of the few cases in which "progress" has been wholesome.

The new sharpening "systems" compare to bench stones and pocket stones like rolled-up tissue paper compares to the old Sears catalogs. Pioneered, to the best of my knowledge, by a company called Lansky, the systems include coarse, medium and fine carborundum stones. (I have neither seen nor heard of such a system using Arkansas stones.) The big step forward is in the use of the stones.

Each sharpener is permanently affixed to a plastic handle which screws onto a metal rod. There is, additionally, a vise-jawed jig which is clamped to the back of the blade. When the tip of the metal rod is inserted in the hole in the jig, the sharpener is held at the proper angle to the blade. You simply apply some light oil to the stone's surface, or follow my granddad's example, and stroke the stone against the blade.

Let me note here that each stroke of the stone should move FROM the edge TOWARD the back of the blade. Stroking the stone toward the edge will create small "teeth" along the edge. This kind of edge will seem quite sharp but will dull quickly in use because the little teeth either break off or bend over.

I admitted earlier to by own bias in favor of the fast cutting diamond sharpeners. I must also admit that the ease and accuracy of the Lansky system had me hanging on the ragged edge of conversion. Now I am at peace with my various blades.

While researching this subject, I perused the offerings of any number of hardware and sporting goods shops and devoured numerous mail order tomes. Thumbing through the latest from that ancient emporium of outdoor goodies, L.L. Bean, Inc., I discovered what has to be the ultimate in maintaining a cutting edge.

I was unable to find even one example through local vendors, but a quick call to Bean's produced a small leather pouch containing a sharpening system made by DMT Corp. It looks for the world like the Lansky I had grown to love, with one major difference. The corborundums were gone and the kit included a pair of diamond sharpeners instead.

One stone is fairly coarse; ideal for hatchets and machetes or perhaps to change the angle on a certain blade. The second stone is all one could ever want to sharpen and maintain any blade in any collection.

Be fairly warned if you are a fan of the old fashioned carborundums and Arkansas stones. Stand well clear of the diamond sharpeners, particularly in the fixed-angle "system" configuration. Once you use it, you'll not likely retrace your steps. On the other hand, if you just want to be able to easily maintain a fine cutting edge, well...



Author favors DMT system, which keeps blade at constant, pre-selected angle during sharpening.



Venturing Out

By Sara Ann Harris
Photography by Bill Ford

My ears must have stayed awake, on watch, on that first night alone in the woods. Hours later I sat up to the sound of rustling nearby and low grunting.

AN EXPLORER NEEDS a good map, a basic necessity second only to nerve. Even though (one) the 100,000 acre Kisatchie District of the U.S. forest near Natchitoches is *not* virgin timber; and (two) there are developed campgrounds at several locations—as close as 100 feet from a forest service road; and (three) I have

a goodly amount of backpacking experience in the Smoky Mountains under my belt—still, I approached this trip to the fairly tame Kisatchie as an exploration, an adventure into the outdoors. And rightly so. On this first of solo camping trips, I was to find habitat remarkably uncharacteristic of Louisiana, features that you won't find explained in a visitor's guide of any kind.

Wilderness in the purist's sense of the word no longer exists in the lower 48 states. America's wild lands (including parks, forests and refuges) are under increasingly heavy demands made by a multiplicity of users. As one conservation writer expressed it: "To enjoy the

splendors of America's wide-open spaces, get a lobbyist, get a permit and get in line." I found Kisatchie National Forest well-used by hunters, anglers, campers, boaters and the list goes on. But it is not a forest that has nearly the overuse problems that the mountain regions of our country, for one, are shouldering. Alone, I was to discover a woods still wild enough to offer frequent encounters with native wildlife.

I was doing it right, so I started with a good map. To reach Kisatchie District the standard Natchitoches Parish map is excellent. Touring the district itself you can rely on the road maps that the forest service provides. The forest roads are well marked for the most part. I had a particular interest orienteering in Kisatchie Hills Wilderness, a protected tract in the northeast sector of the district. So, I met forester Ralph Costa at the Hills. At 8,700 acres, it is the largest of the three designated wilderness areas in the state. Costa unfolded a specially produced topographical map of the area. It is put out by the Forest Service and combines sections of four U.S. Geological Survey sheets. He carefully penciled in a few of the old logging trails that were used during the heyday of the turpentine industry.

The area was assigned wilderness status in the 1980 Colorado Wilderness Act. This and other legislation protect wild lands that have particular ecological, scientific or scenic value. It only took one glance from Longleaf Vista there to understand why Kisatchie had been included. From here and several other overlooks one can see ridge beyond wooded ridge. At 120 to 400 foot elevations these hills in themselves, in Louisiana, are an anomaly. I was curious as to the cause of the uplifting. It is within a huge band of sandstone called the Kisatchie Wold that runs across several states. One of the determining factors in the formation of these hills is that, unlike clay which is impervious to water and consequently erodes in large chunks, sandstone allows rain to permeate it. So sandstone erodes away very slowly. In terms of geological time it takes longer to level.

Another topographical peculiarity that is immediately apparent to a wilderness visitor is that the earth at these high elevations is red, as Red Dirt Game Management Area and Red Bluff Campground in this district indicate. The color was caused by years and years of oxidation. More recent terraces, as they are referred to, graduate down to oranges, yellows, and then ochres.

There are also rock outcroppings, or exposed rocks, in relief along the hillside and mesas, equally atypical for the Bayou State. I hiked the interpretive trail to one such mesa to climb the large steep rock formation to a flat bald top. Devoid of any vegetation, it was lunar in appearance. The view from there embraced open stands of pine, steep slopes and draws down to Cypress Bayou.

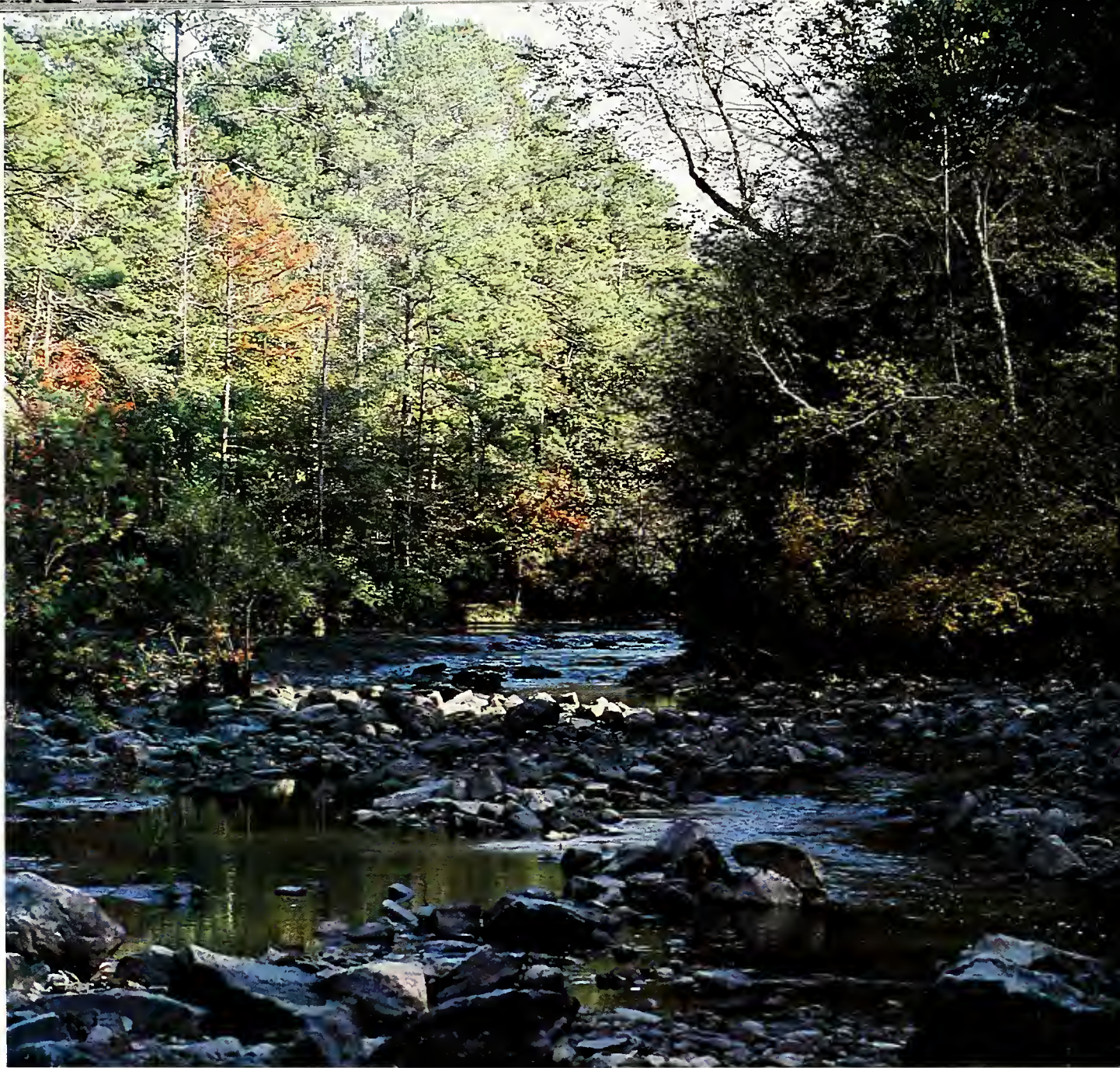
Back on the trail the vegetation was familiar enough. Southern pines such as loblolly, longleaf and shortleaf are mixed with oaks: blackjack, southern red, and post.

In the low wet areas near the bayou are bald cypress, river birch, sycamore and water hickory, along with understory ornamentals like red maple and flowering dogwood. Very clear hog tracks marked the trail down there as if a sow had been out taking the self-guided trail herself.

Congress defines wilderness as land that is affected "primarily by the forces of nature with a minimum of intrusions" by human activity. They are federally owned, accessible by foot or horseback only and offer "outstanding opportunities for solitude or a primitive type of recreation," as a wilderness pamphlet reads. The land use managers employ a hands-off policy allowing nature to take its course except in times of disaster.

Back in the overlander, I headed for Red Bluff Campground. It was here that I was introduced to the fact that not only was this a land of bizarre topographical features and beauty, but one replete with wildlife. A couple of white-tailed deer darted out of the woods into the road, wide-eyed, and then sprang back into the cover. I shifted into four-wheel drive as I turned off of the main thoroughfare and ventured up the wet ridge road. A flock of songbirds flushed as I inched deeper into the woods. Parking, I strapped every pot and food bag I could to my back. I packed in gear, emergency supplies and four days of food a mile or so and set up camp on a bluff overlooking Kisatchie Bayou, a clear and sandy-bottomed stream.





After dinner a kingfisher skimmed just above the water alert at full speed. As the woods darkened, my perception of the auditory was enlivened. A single sycamore leaf tumbling through the dry trees made a scraping noise, audible at 100 feet. Deep full slaps against the water were telltale of nearby beaver activity. They slap to signal one another of danger.

As I bedded down, all that I really didn't want to be awoken by was the sound of a two-legged animal. My ears must have stayed awake, on watch, on that first night alone. Hours later I sat up to the sound of rustling nearby and low grunting. Checking my food sack through the back window, I was assured that the hogs couldn't reach that branch. Later, slender legs tripped one after the next over the tent cord. Still during that same night and it *was* beginning to feel like an unusually long night, shrill desperate screams, like those of a terrorized child broke in on my slumber. A screech owl

apparently had made a midnight snack of a crying rodent.

On a cool morning I had a hearty breakfast of eggs, sausage, fruit and coffee while listening to the weather report over my headset. Rod and reel in hand, I headed upstream for a sandy bank to fish an outside bend of the bayou. I jumped off of the downed tree that I was balancing across onto a small stick strewn beach. Clasp- ing one of the longer sticks, I noticed that it was thou- sands of well-placed teeth marks that had carved the sticks clean. I christened it my beaver walking stick. It is as fine a piece of craftsmanship as any equipment I have ever purchased.

Fishing was slow. Toying with my compass in antici- pation of the hike back, I found that, yes, I had walked upstream, but upstream in this case was southward. Kisatchie Bayou flows north. In fact it is the only bayou in the Louisiana Gulf Coastal Plains that has been

intercepted or "pirated" in such a way as to alter the drainage system of an area. Many years ago Kisatchie Bayou flowed southward all the way to the Gulf of Mexico.

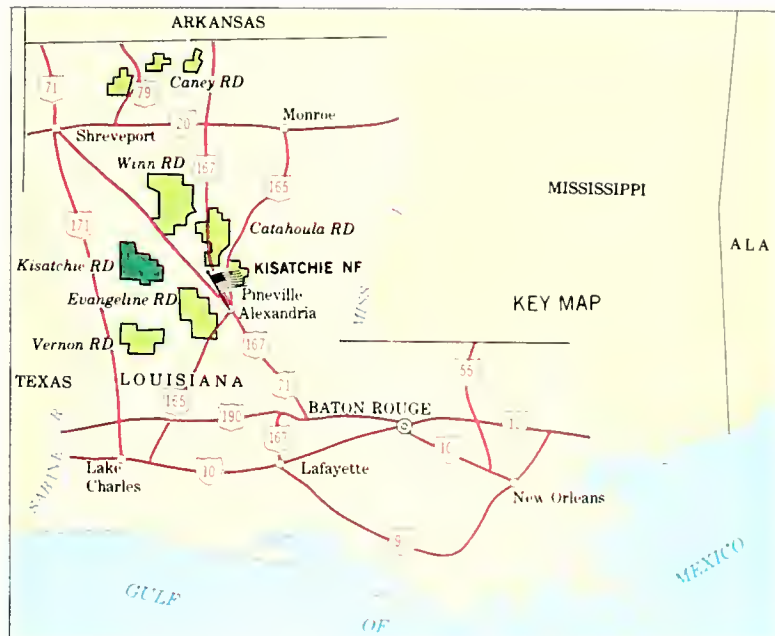
Back at my base camp, I packed for a day trip and headed out for Kisatchie Hills Wilderness again. Photographer Bill Ford was meeting me for a photo session to capture the strange features that give this terrain its wilderness character. After Bill photographed the vistas and the Hills, we scouted for a hillside bog that Costa had mentioned to me the day before. On a hard pan that prevents water from percolating deep into the ground, a bog supports myriad unusual plants. It is now a natural community which is threatened in Louisiana. The characteristic tall pitcher plants grow on a slope wet with the outflow. The plants are dense, moist and crisp. I filled up a jug with spring water from the pipe provided at the base of the slope.

Several miles south at Kisatchie Bayou Campground the backward bayou widens. Bluffs overlook heavy rock outcroppings and the river trips along. It's a popular spot. Recreation Forester Chip Ernst later explained that people are drawn here to listen to the babbling water. A common Downy Woodpecker worked a log for insects. This diminutive bird spends "nearly every wakeful moment of its life pecking at the bark of trees." (George Lowery, *Louisiana Birds*) I have seen several samples of the magnificent petrified driftwood that can be found along the bank of this bayou.

We bumped down and grinded up unmaintained work roads in the overlander in search of a vista facing west for a winning sunset shoot. At the end of the afternoon, I left Bill perched on top of his van-tripod assembled, mega lens in place, awaiting what promised to be a cooperative evening's display of natural drama.

I wanted to be back at camp before all the daylight slipped away. I was jogging down the path to my base camp when my ears perked: forty feet off of the trail—the steps of a two-legged animal. There was, no doubt, a logical answer to the question, why would a person walk through the woods with this perfectly accessible trail here. Never mind, I thought. I am hungry and I so enjoy being able to see what it is I am eating.

It was that time of year when the days are toasty and the nights are chilly. I was about to crawl into the tent, zip myself up inside the mummy bag and pull the cord until daybreak. First, I practiced several rounds with my Ruger .22 semi automatic. Inside the tent I positioned my "home defense" handgun in its place. Sufficiently warm and protected I did sleep that night. Well, most of the night. Not long before dawn I was startled awake by yelping. I couldn't tell exactly how many animals it was. They were uphill from my camp moving parallel to the bayou. I remembered Bill's worst animal-in-the-woods story. Lost hounds that were running in a pack had found him in the Atchafalaya Basin. Dogs, of



Map locates sections of Kisatchie Forest in Louisiana. Section containing Kisatchie Hills Wilderness is highlighted.

In addition to the wilderness area, Kisatchie National Forest offers a variety of outdoor recreational opportunities. A few of the more well-known ones are:

Wild Azalea Trail—At 33 miles it is Louisiana's sole backpacking trail. National Recreation Trail. Evangeline District.

Grant Parish Dogwood Loop—An auto trail of natural sights developed particularly for RV travelers. Catahoula District.

Fullerton Mill Site—Historical town site and sawmill, the second largest in the South in the heyday of the industry. Vernon District.

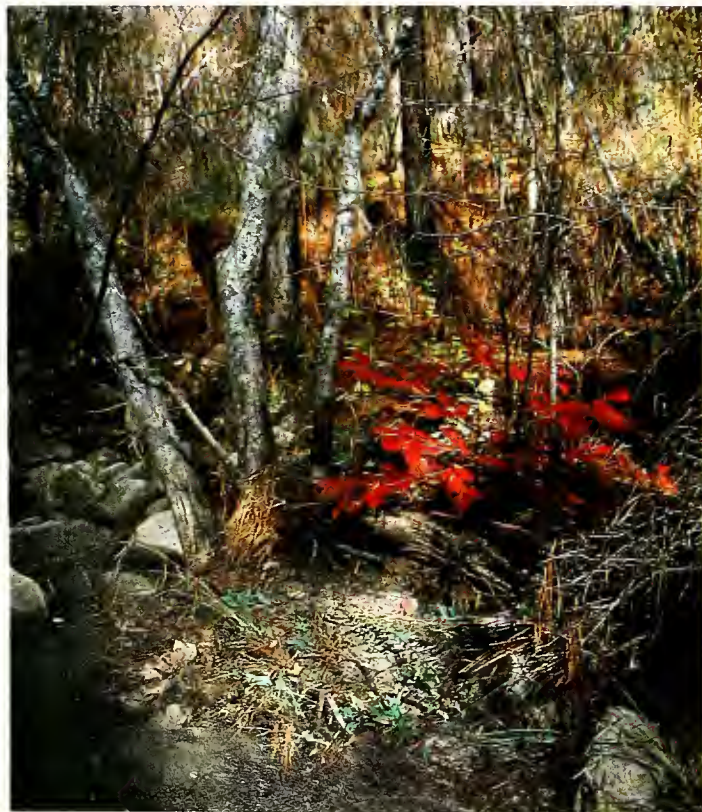
Vernon Trails—Horseback riding trails in the pines. Vernon District.

Saline Bayou—A National Wild and Scenic River. Undeveloped access points for canoers. Winn District.

For additional information and needed maps, write to Supervisor's Office, Kisatchie National Forest, 2500 Shreveport Highway, Pineville, LA 71360 or call (318) 473-7160.

course, unlike wild animals are acclimated to people. They were nearly crazed with hunger. And they knew he had food. I reached for the handgun. But these were definitely not hounds. Not dogs. They were coyotes. The howling quieted slightly as they bypassed my camp. I chuckled to myself. They were headed directly for Bill's. The next morning the photographer reported that "Yes, they were sniffing and circling near my tent. Three adults and three pups. Then they sat on their hindquarters, raised their heads, and went to howling at the moon. I could have killed for a camera. It was 4 a.m., for goodness sakes. What else was I going to do? I couldn't sleep."

I spent the next couple of days making backcountry forays into the Kisatchie Hills Wilderness. I happened upon Recreation Forester Chip Ernst who penciled in additional ridge trails on the topo sheet that Costa had left me. He informed me that the Caroline Dorman Trail is in the making. A naturalist, Dorman had conferred upon her an honorary degree from Louisiana State University for (among other accomplishments) establishing this one and only national forest in Louisiana. The ten mile hiking/horseback riding trail in the Kisatchie District is planned to include the old logging trails in the Hills and a route from there to Kisatchie Bayou Campground. Almost all of the trail miles are in place. The



foresters were temporarily deterred from completing it by the need to control the pine beetle in 1985 and the fire in 1987.

Ernst pointed out that today in the Kisatchie Hills Wilderness, even if a person loses the ridge trail, it's just a matter of heading back in any direction but north. Every side of the Hills except the north is bounded by a forest service road. It would be a slow but predictable hike out.

I searched for a subtle break in the vegetation that might mark an old logging trailhead. Topo sheet and compass in hand, I tracked the thing down. My final destination was the peak of this ridge. I used the standard scout approach: I determined a course by getting a compass bearing, azimuth or the directional angle to take from where I was to where I wanted to be, picked an object referent on the physical horizon for my first stop, proceeded to that point and then repeated the process. Lucky me. This was one of the trails that was completely overgrown. Also, on the ground this ridge was very different from what it looked like from Longleaf Vista. From a distance it was greened-up, recovered from the 1987 fire. But in actuality many of the charred branches were still in place. After only a couple of miles, though completely unharmed, I looked like the victim of some molestation you'd see on the six o'clock news. My bare arms and legs, my clothes and pack were heavily marked up in black. But the panoramic view of this land called Little Grand Canyon and the easy breeze at the peak more than made up for a little messiness.

Breaking camp on the last day I was surprised by a spotted fawn. Surprised because in this sound sensitive world, I had not heard her approach. Glancing her way had been merely coincidental. That afternoon I managed to get some sixty pounds of gear up on my back. I know better than to pack heavily, but I had been sure I would need a five gallon jug of water and an extra rain tarp and books and a radio and a gun and a camera and lots of real food. Besides it had only been a mile in. I had consumed all of the water and most of the food. But beaver walking stick in hand, still the hike uphill was slow.

Half way up, again, I heard those humanlike steps some 25 paces away. Walking right onto the trail a full grown gobbler showed himself. We froze in one another's stare. The giant bird then took flight. He was followed immediately by another equally colorful turkey. They flapped their large wings through the woods until clapping a tree limb some sixty feet off of the ground.

The forest districts are the largest expanses of "undeveloped" public land in Louisiana. When you visit them be aware that low human impact on this dwindling and sensitive resource we Americans loosely call wilderness is paramount to the existence of the evident ecological, wildlife and scenic values still there.

"WE GET LETTERS..."

The July/August 1987 issue of Louisiana Conservationist contained an article on the Indian origins of many Louisiana city and place names. We have received a number of requests that the author's sources be credited and, as expected with an article of this nature, a few alternate origins for certain place names listed. These were forwarded to the author and his response follows.

—Editor

Gives Sources for Article

For your readers who were dismayed by the absence of references in "Louisiana's Native American Place Names," (July/August, 1987) I hope the following information will be helpful. The best single source on Louisiana place names was correctly identified by one reader as William A. Read's definitive work, "Louisiana Place-Names of Indian Origin." *Louisiana State University Bulletin XIX*, No. 2, Baton Rouge, La., 1927. Unfortunately it is out of print, and somewhat difficult to find. It deserves to be reprinted.

I have been collecting information on native American place names in the U.S. for four years. In preparing the Louisiana article I contacted over 50 postmasters, and superintendents of parks and NWR's. Their responses were uniformly helpful, for which I am grateful. I drove across the state twice, and consulted scores of references on Indians, archeology, and early exploration. For my initial draft, I drew heavily on:

Swanton, John F. *The Indians of the Southeastern United States*. The Smithsonian Institution Press (Reprint of the 1946 Edition), Washington, D.C., 1979.

Bierer, Bert W. *Indians and Artifacts in the Southeast*. Bierer Publishing Company, Columbia, S.C., 1977.

Harper, Kelsie B., editor. *Illustrated Dictionary of Place Names (United States and Canada)*. Van Nostrand Reinhold Company, New York, 1976.

Intending a "popular" article, I also used a variety of ephemeral sources including the AAA Guide Book to Louisiana and an excellent publication developed for La.'s World's Fair visitors, *River Trails, Bayous, and Back Roads*, published by the Louisiana Office of Tourism, P.O. Box 44291, Baton Rouge 70804. Meanings for nine of the names in my article can be found in this work, including the origin for Lacassine. The reader who feels this bayou, town and NWR were named for her great-grandfather might wish to consult the short paragraph in this reference.

My search was supplemented by a highway map and a guide to postal ZIP codes. Subsequently I was able to fill in a few gaps and confirm many local interpretations by reference to Read's authoritative classic. In many cases, I relied on Read for the Choctaw origin word but did not give it in every instance.

To the gentleman who wrote to state that Achafalaya means "One, long," or "The long one," (in Choctaw, like Spanish, adjectives go after the noun they modify) and not, as I indicated, "Long river," I can only agree and say thanks for the correction. Like Bogue Falaya.

While many of Louisiana's native American place names originated in languages spoken within Louisiana, some names were transplanted. My piece contained at least 6 names in this category but to cite each reference would take more space than is appropriate for my reply.

The high school student-reader who is considering a project on Native American names may also wish to consider:

Sealock, Richard B. and Pauline A. Seeley. *A Bibliography of Place-Name Literature: United States and Canada*, 2nd Edition. American Library Association, Chicago, 1967.

Steward, George R. *American Place-Names: A concise and Selective Dictionary for the Continental United States of America*. Oxford University of Press, New York, 1970.

After my piece appeared in your magazine, a reader in Tallulah sent me a copy of an interesting little booklet entitled "Those Strange Louisiana Names," by Codman Parkerson (information on the publisher or date was not given).

John B. Tenney
Williamson, NY

Wants to Help Save Forests

I would like to help keep our land from being destroyed by industrialization and the salt water from the sea. I was watching a show on TV the other night and it made me mad seeing our land being destroyed.

Some people think that we should clear all the land for development. Those people sit in their offices and don't get out in the wilderness to see what it is really like.

The forest keeps our wildlife safe and protected. People go into the wilderness to camp, fish, hunt, hike and just go to see the scenery. Others go to get away from cities and towns. Bird watchers and plant seekers also go to the wilderness to see its beautiful animals, trees, plants and lakes.

Things that live in these forests would have a problem if we started clearing away the land and destroying their homes. Clearing the land would take away all the habitat for our animals and beautiful places for our people to get away from their noisy city life.

Damien Frederick
Vinton



Found Mastodon Jawbone

First, I'd like to say that I have been reading your magazine for many years, and really enjoy it. My father worked for the La. Wildlife and Fisheries in the Enforcement Division until his death in 1967, and I enjoy keeping up with events in the department through your magazine.

I thought you might be interested in this artifact that I found here in Louisiana. I sent a picture of it to the Smithsonian Institution and they sent me a letter saying it was the lower jawbone of a young mastodon, estimated to be 1½ to 3 million years old. It is about two feet in length, and they said it's one of the largest pieces found intact in this area. I found it about three miles upriver from the Vidalia-Natchez bridge on the Louisiana side of the Mississippi River.

Elliot Beard
Vidalia

Conservationotes

Thibodeaux Receives Award

Wilson "Tibby" Thibodeaux of Baton Rouge received the prestigious Arthur Van Pelt Award for outstanding achievements in conservation at the 1988 Louisiana Wildlife Federation convention in Lafayette.

The award, given each year by the Louisiana Outdoor Writers Association, was presented by LOWA President Ann Taylor.

Thibodeaux, 70, was cited for a lifetime of dedication and commitment to wildlife and natural resources conservation. He has served on the Board of Directors of the Louisiana Wildlife Federation for 32 years and is concluding his second term as president of that organization. He has also been a member of the Board of Directors for the Baton Rouge Sportsman's League for 33 years and has served as president of that organization four times.

An avid waterfowler, Thibodeaux is an active and outspoken "watchdog" on environmental and wildlife conservation issues. He was a major force behind the Federation's recent successful effort to secure passage of "Constitutional Amendment Number 2." That legislation protects funds generated by the Department of Wildlife and Fisheries from diversion to other agencies and purposes.

Strader gets Top Award

One of Louisiana's most coveted distinctions, Conservationist of the Year, has been conferred upon **Robert W. Strader**. A project biologist in the Office of Fish and Wildlife Enhancement for the U.S. Fish and Wildlife Service, Strader has made an outstanding contribution to the wise use of Louisiana's natural resources.

He was presented the **Governor's Award**, a statuette of a bald eagle that goes with his new title, at the 49th convention of the Louisiana Wildlife Federation, held in Lafayette in February.

Six other award recipients also were named under the 24th annual Governor's State Conservation Achievement program, sponsored by Sears, Roebuck & Co. and conducted by LWF.

Strader has demonstrated foresight and decisiveness in his many involvements. He successfully spear-

headed a project that saved the Henderson Lake area in Atchafalaya Basin from a Congressionally approved effort to divert large amounts of agricultural run-off into the lake. By developing extensive documentation of the ensuing adverse impact on the lake and launching a public education program on such, Strader effected the termination of a Corps of Engineers project, one of the few ever to be halted to protect fish and wildlife values only.

Villere C. Reggio, Jr., Conservationist of Year-Professional. As an outdoor recreation planner for the Minerals Management Service, an agency of the U.S. Department of Interior that develops the oil and gas resources of the Outer Continental Shelf, Reggio has been a successful catalyst for conservation

achievements of both short and longterm value to the state of Louisiana: Rigs to Reefs, marine recreational fishing maps and beach cleanups, to name the most recent.

Frank B. Williams, Conservationist of the Year-Nonprofessional. The list of Williams' philanthropies and personal efforts on the conservation front is virtually endless. They range from preservation of wildlife habitat to the acquisition and reproduction of paintings by internationally famous artists for purposes of fund raising. His work in behalf of waterfowl, as a guiding spirit of Ducks Unlimited, has brought him recognition throughout the North American continent.

Martha Madden, Conservation Education Award. As secretary of the Department of Environmental Quality, Madden has demonstrated leadership in fully supporting the Partnership Project. The project aligned DEQ with the Louisiana Science Teachers Association to develop a book sized teacher's resource on over 100 environmental topics which di-



Award winners and categories are, from left: Villere Reggio Jr., Professional; Bob Anderson, Communicator; Bob Strader, Governor's Award; Joe McPherson, Elected Official; Leonard Knapp, representing Calcasieu League for Environmental Action Now as Organization of the Year, and Tibby Thibodeaux, LOWA Arthur Van Pelt Award winner. Sitting from left are: Martha Madden, Conservation Education Award and Laverque Brown representing Frank B. Williams, Nonprofessional.

rectly involve this state. Environmental science textbooks are still rare in the country today.

W. Joe McPherson, Conservationist of the Year—Elected Official. The state senator's record of commitment to Louisiana's woods and waterways was predictably strong in 1987. He was directly involved in the restoration of Lake Buhlow and the Red River. He coordinated the upgrading of the Larto-Saline Lake Complex and authored legislation to protect the Conservation Fund.

Bob Anderson, Conservationist of the Year—Communicator. Anderson is the environmental editor for the *Morning Advocate* in the capital city of Baton Rouge where legislation is effected. He has written literally hundreds of articles including in-depth series on oilfield waste, coastal erosion, flood problems, and untreated sewerage discharges.

Calcasieu League for Environmental Action Now, Conservation Organization of the Year. This relatively young citizens' organization of southwest Louisiana has shown superior initiative by extending themselves to acquire professional training and disperse conservation information on their region. They have completed a 1,000 page study of the Calcasieu River that resulted in banning discharge into that river and recently received a Mott Foundation Grant to conduct a comprehensive health survey on the Calcasieu Area.

Jenkins Joins Commission

James H. Jenkins Jr. of Baton Rouge has been seated on the Louisiana Wildlife and Fisheries Commission following his appointment by Gov. Edwin W. Edwards to a six-year term.

Jenkins, 55, succeeds Mark A. Roberts of Shreveport, whose term expired.

President of Jenkins Construction Corp., Jenkins is a 1954 graduate of Louisiana State University and holds a degree in civil engineering. He served as a pilot in the U.S. Air Force from 1955 to 1959.

Jenkins combines a love of hunting and fishing with a deep commitment to the conservation of Louisiana's fish and wildlife resources.

The commission is the policy-making body of the Louisiana Department of Wildlife and Fisheries. Commission chairman for 1988 is Joe Palmisano Jr. of Chauvin. Newly elected vice chairman is Don Hines of Bunkie.



LWF Print/Stamp Available

The Louisiana Wildlife Federation has announced its third annual Conservation Print/Stamp sale. This year's edition is a waterfowl print by artist Gary Moss of Minnesota.

The print, and identical stamp, depicts a pair of wood ducks in a typical swamp setting. The print/stamp combination is entitled "Safe Haven," and is available for \$78.00. Framing with non-glare glass and a brass title plate is available at extra charge.

Additional information and order forms are available from the Louisiana Wildlife Federation, P.O. Box 16089 LSU, Baton Rouge, LA 70893.

Wildlife Week Hails Forests

"Forests Are More Than Trees" will be the theme as Louisiana joins in the celebration of National Wildlife Week March 20-26.

As a highlight of this year's observance, the city of New Orleans will play host to the 52nd annual meeting of the sponsoring organization, the National Wildlife Federation. The conference will be held March 17-20 at the Hyatt Regency Hotel.

J. Burton Angelle Sr., secretary of the Louisiana Department of Wildlife and Fisheries, said that in line with an official proclamation by Gov. Edwin W. Edwards, LDWF personnel will participate fully in Wildlife Week.

District offices throughout the state are providing classroom instructional materials and speakers for interested groups of all ages.

Wilson J. Thibodeaux, president of the Louisiana Wildlife Federation, is 1988 state chairman of National Wildlife Week. Prior to this year, Joe L. Herring, LDWF's assistant secretary for wildlife, had held the state chairman's post for 25 consecutive years.

A Threat to Your Pet

Rabies Awareness Week once again will be observed in this state under sponsorship of the Louisiana Veterinary Medical Association.

The dates, May 1-7, were chosen to coincide with National Pet Week, according to LVMA member Martha A. Littlefield-Chabaud of Baton Rouge.

Pet ownership confers responsibility, she noted, and "it is our goal to remind pet owners that this responsibility includes vaccinating each dog and cat against the deadly disease of rabies."

Agents Get Gift of Cameras

Six new cameras are helping Louisiana wildlife agents gather evidence against violators, thanks to the Ark-La-Tex Chapter of Safari Club International.

The 35mm cameras were a gift from the sportsmen's association to agents operating in the seven northwestern parishes that comprise Region I of LDWF's Enforcement Division.

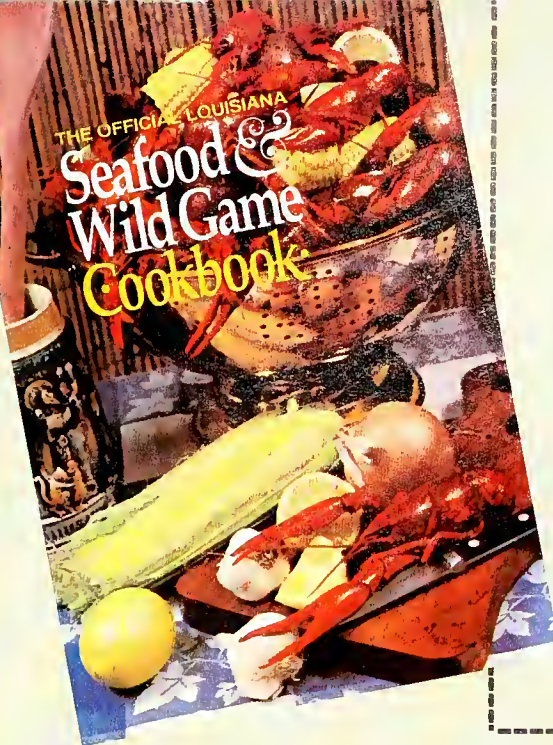
The cameras were presented by Dr. M.E. Milstead, president of the Ark-La-Tex Chapter, to Maj. Duffy Gandy at a Safari Club gathering in Shreveport.

Led by Milstead and Ed Durham, vice president, the chapter also has been active in supporting LDWF's hunter education and wildlife management programs.

The parishes covered by Region I are Bienville, Bossier, Caddo, Claiborne, DeSoto, Red River and Webster.



Taking part in presentation of cameras are (from left) Ed Durham, Maj. Duffy Gandy, Dr. M.E. Milstead and Lt. R.K. Barnes.



Send your order to:
Louisiana Cookbook
 Dept of Wildlife and Fisheries
 P.O. Box 15570
 Baton Rouge, LA 70895

Please check type of payment:

☐ Check or money order

☐ MasterCard ☐ VISA

If MasterCard or VISA, give information below:

Account # _____

Expiration Date _____

Signature _____

_____ Please send me (the number I've indicated) copies of
The Official Louisiana Seafood & Wild Game Cookbook.

_____ Enclosed is the stated amount. (\$12 times the number of copies ordered.)

Name _____

Address _____

City _____ State _____ Zip _____

Allow 4-6 weeks for delivery.

Now Widely Available

The award-winning *Official Louisiana Seafood and Wild Game Cookbook* is now widely available. As always, it can be ordered using the order blank, but it is also available for

over-the-counter purchase at numerous seafood and sporting goods outlets across the state and all district offices of Wildlife and Fisheries.

Priced at only \$12, the cookbook is a prized reference for sportsmen and discriminating cooks and features mouthwatering seafood and wild game meals as well as outstand-

ing sections on appetizers and beverages, pies, cakes and desserts, breads and more.

A money order, cashier's check or cash is required to purchase the book at the different district offices.

All profits from sales of the cookbooks are dedicated to wildlife conservation efforts.

TO:
 Louisiana Conservationist Account
 Post Office Box 15570
 Baton Rouge, LA 70895

I'm a Louisiana Conservationist! Enclosed is my check, made out to Louisiana Conservationist Account. I qualify as:

☐ Contributor (\$6 minimum). Send bumper sticker.

☐ Benefactor (\$25 minimum). Send bumper sticker AND embroidered patch

Name _____

Address _____

City _____ State _____ Zip _____



"I'm a Louisiana Conservationist"

Now is the time to show your true colors. A donation to the Louisiana Conservationist Account will help maintain this magazine and support our wildlife management efforts.

To each Contributor of \$6 or more,

we'll mail a colorful bumper sticker that proudly proclaims: "I'm a Louisiana Conservationist." To each Benefactor who donates \$25 or more, we'll send in addition to the bumper sticker a handsome, embroidered patch suitable for display on shirt jacket or cap.

So, fill in and mail the coupon at the bottom of this page along with your check. You may make your gift as small or as large as you like. Remember, it's *tax-deductible*.

Act today so you can proudly display to the world that "I'm a Louisiana Conservationist."

Bayou Kitchen

by Wayne Miller



Blackened Drum

1 tablespoon paprika
2 tablespoons salt
1 teaspoon Onion Powder
1 1/2 teaspoon garlic powder
1 teaspoon red pepper
1/2 teaspoon white pepper
1/2 teaspoon black pepper
1/2 teaspoon thyme
1/2 teaspoon oregano
1 tablespoon parsley, chopped

Mix above dry ingredients in bowl. Dip 1 inch thick drum fillets in melted sweet cream butter & sprinkle with the seasoning mixture, then drop into **VERY HOT** cast iron skillet.

Cooking time is only 3 to 4 minutes per side; thinner fillets require less time. (A tablespoon of butter may be added to the skillet just before the seasoned fish to prevent sticking.)

Black Drum Creole

1-lb. black drum fish
1 cup chopped onions
1 cup chopped bell pepper
1 cup chopped parsley

4 cloves chopped garlic
4 bay leaves
6-oz. can tomato paste
16-oz. can whole tomatoes
2 cups water
2 lemons
Salt & red pepper to taste
1/2 teaspoon basil
Dash of Tabasco sauce
1/2 cup cooking oil
7 tablespoon flour

Clean fish well, score on each side at 1-inch intervals. Season fish well using salt & pepper. Squeeze lemon juice. Place in a heavy casserole dish and set aside. In a heavy pot, heat oil over med. heat. Add flour & make roux. Add seasonings. Sauté till done. Add tomato paste & tomatoes & water, blend well. Cook over med. heat 10 mins. Add rest of seasonings. Season to taste. Cook approximately 20 mins. Pour gravy over fish. Cook uncovered in oven for approx. 1 hour at 350°. Add water as necessary to retain volume.

Orange Glazed Carrots

2 ounces butter
2 pounds peeled and sliced carrots
1 3/4 cups fresh orange juice
1 teaspoon salt
Orange glaze
2 tablespoons fresh parsley (chopped)

Melt butter in pan. Sauté carrots 1-1 1/2 minutes. Add orange juice and salt. Cook on medium fire until most of juice has disappeared. Pour orange glaze over hot carrots and stir to coat all carrots. Put in serving bowl and garnish with parsley. (Serves 6 to 8).

To make orange glaze, mix following ingredients together in small bowl:

1 1/2 tablespoons orange juice concentrate
1 tablespoon honey
2 teaspoons cornstarch
1 fresh orange (use juice and grated peel)

FORESTS ARE MORE THAN TREES

NATIONAL
WILDLIFE
WEEK
MARCH 20-26, 1988

Join and Support the
NATIONAL
WILDLIFE
FEDERATION
and State Affiliates

